

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/070,311
Attorney Docket No.: Q68557

AMENDMENTS TO THE DRAWINGS

Applicant is enclosing herewith one (1) sheet of replacement drawings, which include FIG. 1. FIG. 1 has been amended to change the numeric reference "1" to numeric reference --30--. The submitted replacement sheet is intended to replace FIG. 1 previously filed on May 31, 2002.

Attachment: Replacement Sheet

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REMARKS

Claims 1-7 and 10-13 are all the claims pending in the application. By this Amendment, Applicant editorially amends claims 1-7. Claim 1 was amended to further clarify the invention. The amendments to claims 2-7 were made for reasons of precision of language and consistency, and do not narrow the literal scope of the claims and thus do not implicate an estoppel in the application of the doctrine of equivalents. The amendments to claims 2-7 were not made for reasons of patentability.

Also, Applicant adds claims 10-13. These claims are clearly supported throughout the specification, *e.g.*, *see* pages 6-8.

I. Preliminary Matters

Applicant thanks the Examiner for acknowledging the claim to foreign priority and for confirming that the certified copy of the priority documents was received. In addition, Applicant thanks the Examiner for initialing the references listed on Form PTO/SB/08 A & B submitted with the Information Disclosure Statement filed on March 5, 2002.

The Examiner, however, has not indicated receipt or consideration of the references listed on form listed on form PTO/SB/08 A & B submitted with the Information Disclosure Statement filed on January 27, 2005. Therefore, Applicant respectfully requests the Examiner to acknowledge receipt of the Information Disclosure Statement filed on January 27, 2005 and to initial and return a copy of the Form PTO/SB/08 A & B. For the Examiner's convenience, a copy of the form PTO/SB/08 A & B as filed on January 27, 2005 is enclosed.

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II. Summary of the Office Action

In this Non-Final first Office Action, the Examiner objected to the drawings and claim 1. In addition, the Examiner rejected claims 1-7 under 35 U.S.C. § 101 and 35 U.S.C. § 102(e). Finally, claim 1 is rejected under 35 U.S.C. § 112, second paragraph.

III. Objection to the Drawings

The Examiner has objected to the drawings received on May 31, 2002 because the numeric reference 30 is not depicted in the Figures (*see* page 2 of the Office Action). The drawings have been amended to remedy this minor informality. A replacement drawing sheet containing Figure 1, which replaces the numeric reference 1 with the numeric reference 30, is accompanying this response. As a result, the Examiner is respectfully requested to acknowledge receipt and indicate approval of the drawing correction in the next Patent Office paper.

IV. Claim Objection

The Examiner objected to claim 1 because of a minor informality. Applicant has revised the claim, and respectfully submits that the claim as now presented no longer includes the potential informality mentioned by the Examiner. Applicant therefore respectfully requests the Examiner to withdraw the objection to claim 1.

V. Claim Rejection under § 101

The Examiner rejected claims 1-7 under 35 U.S.C. § 101 as being directed to a non-statutory subject matter. In particular, the Examiner points out that “an arrangement” is not a

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process, machine, manufacture, or composition of matter and that the claims fails to recite any tangible subject matter (*see* page 3 of the Office Action).

Applicant has revised claims 1-7. In particular, claims 1-7 are now directed to a network. Clearly, claims 1-7 recite “a physical thing,” MPEP § 2106, IV(B). A network may be classified as a machine and/or an article of manufacture. In short, a “network” is tangible physical thing and is clearly a statutory subject matter. For at least this exemplary reason, it is appropriate and necessary for the Examiner to withdraw this rejection of claims 1-7.

VI. Claim Rejection under § 112, second paragraph

The Examiner rejected claim 1 under 35 U.S.C. § 112, second paragraph, alleging that various unique features of claim 1 are indefinite. Independently, Applicant has amended the claims for improved conformity with the U.S. practice. Applicant respectfully submits that this coincidentally overcomes all of the Examiner’s problems with the claims.

Applicant also respectfully points out that the breadth of the claim is not to be equated with indefiniteness. MPEP § 2173.04. The claims broadly define the network with a plurality of nodes having recursive hierarchy, and is not limited to a particular formation of the recursive hierarchy. Moreover, it is respectfully submitted that the artisan of ordinary skill could now read the claims on file and understand the broad scope of patent protection sought to be protected.

The MPEP, in §2173.05(a), states:

If the claims, read in light of the specification, reasonably apprise those skilled in the art both of the utilization and scope of the invention, and if the language is as precise as the subject matter

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permits, the statute (35 U.S.C. 112, second paragraph) demands no more. *Shatterproof Glass Corp. v. Libbey Owens Ford Co.*, 758 F.2d 613, 225 USPQ 634 (Fed. Cir. 1985).

Since the claims would reasonably apprise the artisan of ordinary skill as to their scope, it is respectfully submitted that the claims meet the requirements of 35 U.S.C. § 112, second paragraph.

In short, claim 1 is sufficiently definite in light of these self-explanatory claim amendments and arguments presented above. Therefore, it is appropriate and necessary for the Examiner to withdraw this 112, second paragraph, rejection.

VII. Claim Rejection under § 102(e)

Claims 1-7 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,831,975 to Chen et al. (hereinafter “Chen”). Applicant respectfully traverses in view of the following comments.

To be an “anticipation” rejection under 35 U.S.C. § 102, the reference must teach every element and recitation of the Applicant’s claims. Rejections under 35 U.S.C. § 102 are proper only when the claimed subject matter is identically disclosed or described in the prior art. Thus, the reference must clearly and unequivocally disclose every element and recitation of the claimed invention.

Of the rejected claims, only claim 1 is independent. Independent claim 1, among a number of unique features, recites: “the plurality of nodes are grouped into units of a first level of the hierarchy, based on at least one of geographical proximity, network ownership, and traffic

flow.” The Examiner alleges that claim 1 is directed to an arrangement and is anticipated by Chen. Applicant respectfully disagrees. Applicant has carefully studied Chen, which lacks any teaching or suggestion as to how the switches are grouped.

In general, Chen relates to extending the private node network interface (PNNI) to support hierarchical multicast routing and signaling for ATM networks. Chen utilizes an extension to a core-based tree algorithm. Instead of a single core node, the core nodes are maintained in each peer-group and at each level of the hierarchy. Accordingly, in Chen, one single core node is not overloaded (*see* Abstract; col. 6, line 52 to col. 7, line 4).

In particular, Chen teaches a PNNI Architecture 10 where at the lowest level 104 of the hierarchy, the nodes 12 of the graph represent the physical switching systems. The links 14 at the lowest level 104 represent physical links that connect the various switching systems. At higher levels 80, 64, the nodes 16, 18 are logical nodes, where each logical node 16, 18 represents a collection of nodes at the lower level of hierarchy. Similarly, a link 20 between two logical nodes is a logical link that represents connectivity between the sets of nodes represented by the logical nodes. Nodes at each level are grouped together to form Peer Groups 22, 24, 26. Each peer-group has a peer-group leader (PGL). The PGLs represent the peer-group as a logical node at the higher level of the hierarchy. At the lowest level 104, the links 28 that connect nodes belonging to different peer groups are called border links (Fig. 1, col. 4, line 55 to col. 5, line 15; col. 9, lines 10 to 33).

Since Chen only teaches splitting nodes into groups and fails to teach or specify a criteria for the splitting/breaking of the nodes into groups, the rejection must be withdrawn as the Chen

reference lacks “sufficient specificity” required under 102. “[A]nticipation under § 102 can be found only when the reference discloses exactly what is claimed and that where there are differences between the reference disclosure and the claim, the rejection must be based on § 103 which takes differences into account.” *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985); MPEP § 2131.

Therefore, “the plurality of nodes are grouped into units of a first level of the hierarchy, based on at least one of geographical proximity, network ownership, and traffic flow,” as set forth in claim 1, is not disclosed by Chen, which lack any disclosure as to how the nodes are logically and physically split into groups.

In addition, claim 1 recites: “the units of same level exchange a corresponding load status information.” For example, the units of the same level exchange the current value of the traffic level (or an aggregation of this value) which is monitored in each node (*e.g.*, page 4, lines 11-18 of the specification). This load status information is used to frequently determine the appropriate path between the source and destination of a message.

Chen, however, only discloses that the available bandwidth, the mean delay on the link, and the peak cell rate supported by the link are flooded within the peer-group of the node. In Chen, these values are inherent characteristics. That is, these values do not change unless in a case of a reconfiguration. In other words, Chen fails to teach or suggest exchanging the load status information. Furthermore, in Chen, these values are determined once and then remain more or less fixed. Chen fails to teach or suggest these values being frequently measured/updated. Therefore, “the units of same level exchange a corresponding load status

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information,” as set forth in claim 1, is not disclosed by Chen, which lacks signaling load status as the load status information is used to frequently determine the appropriate path between the source and destination of a message and as such is frequently updated.

For at least these exemplary reasons, claim 1 is patentably distinguishable from Chen. Therefore, Applicant respectfully requests the Examiner to withdraw this rejection of claim 1 and its dependent claims 2-7.

VIII. New Claims

In order to provide more varied protection, Applicant adds claims 10-13. Claims 10-12 are patentable at least by virtue of their dependency on claim 1. Claim 13 recite features similar to the features argued above with respect to claim 1. Accordingly, arguments submitted with respect to claim 1 apply to claim 13 with equal force. Therefore, claim 13 is patentable for at least analogous reasons.


IX. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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